SUMMARY OF PROJECT

PART 1 - GENERAL

REQUIREMENTS INCLUDED

This section is intended to include basic descriptions of the Work, schedules, related sequences and various administrative requirements.

Differences in format and subject matter of these Specifications may exist. It is the CONTRACTOR'S sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions which are unclear. It is in the CONTRACTOR'S best interest to request clarifications during the bidding process. Following the bid, it is the ENGINEER'S sole responsibility to provide clarification of the intent of the contract documents. The intent of the contract documents shall be included in the CONTRACTOR'S bid price.

Contractor shall provide a written warranty in accordance with the General Conditions Article 6.19 for a minimum of 12 months following **Notice of Substantial Completion** for all aspects of the project except where additional warranty is required as a SPECIAL WARRANTY.

DESCRIPTION OF WORK

The work required by the project shall consist of furnishing all labor, materials, equipment, and supervision; and performing all work necessary to stockpile landfill cover material near the Teton County, Idaho Landfill location in accordance with the Specifications. The cover material is located at the Teton County Gravel Pit near Felt, Idaho, approximately 14 miles from the Teton County Landfill location. The work shall consist of, but not necessarily be limited to, performing the following tasks:

1. Mobilization/Demobilization;
2. Provide and install temporary erosion controls;
3. Temporary Construction Facilities with Office for the Field Engineer;
4. Site Preparation, including;
    a. Topsoil Stripping
    b. Stockpiling cover material for testing at Felt Pit
5. Loading and hauling of approved material
6. Unloading of material near Teton County Landfill in approved location
7. Site restoration.

All work shall follow the procedures and meet the requirements stated in the Teton County Landfill Cover: Borrow Source Material Requirements attached to this Specification as Appendix A.

It is the Intent of the Contract Documents to cover all aspects of the Project. Should there be some item or items not shown on the Drawings or not described in these Specifications which are required for each individual pay item, those items and the furnishing of all labor, materials, and equipment shall be considered incidental to that pay item and no additional compensation will be provided.

The Work includes furnishing of all labor, equipment, tools, machinery, materials, and other items required for the construction of a complete Project or System as specified. Equipment furnished shall be in safe operating condition and of adequate size, capacity, and condition for the performance of the Work. CONTRACTOR shall obtain all measurements necessary for the Work and shall be responsible for establishing all dimensions, levels, and layout of the Work.

CONTRACTOR shall be soley responsible for the coordination of activities with regard to the Project and the activities of SUBCONTRACTORS and OWNER. CONTRACTOR shall provide supervision of SUBCONTRACTORS at all times SUBCONTRACTORS are working on-site.

FORM OF SPECIFICATIONS

Some Work described in these specifications use a system approach to identify systems or structures or facilities. System components are either specified in system specifications or by reference to another section.

SITE OF WORK

The site of construction is to remove and stockpile material from the Felt Pit location for testing and then upon approval of material, load, haul, and stockpile material near the Teton County, Idaho Landfill location.

A map illustrating construction locations for removing cap material at the Felt Pit (the initial area will be a 300 foot wide strip starting at the southeast corner of the property) , the haul route, and the stockpile location near the Teton County Landfill is attached as Appendix B.

BEGINNING AND COMPLETION OF THE WORK

Conform with all preliminary matters stated in Article 2 of the General Conditions before commencing the Work. Commencement dates along with completion dates are stated in the Notice to Proceed.

CONTRACT METHOD

Contract for the Work based on estimated quantities and unit prices in contract with the OWNER shall be full compensation for labor, equipment, materials, and other items (not specifically mentioned) required to complete the Work in accordance with the Plans and Specifications for each pay item.

Construct the Work under a Contract. Explanations of bid items identified in Bid Form are given in Section 01025 - Measurement and Payment.

WORK SEQUENCE

Under no conditions can the Work of this Project interfere with the operation of existing facilities without written approval from the OWNER.

Submit to the Engineer a preliminary and then the final construction schedule, according to requirements of paragraph 2.06 of the General Conditions, covering the entire Work before any Work is commenced.

After Work has begun on any portion or designated part of the Project, carry it forward to its final completion, unless approval is given in writing from the OWNER. All Work shall conform to the provisions of the approved cleaning and inspection schedule.

Schedule and perform Work under the Contract in such a manner as to result in the least possible disruption to the operation of existing facilities.

All work shall follow the work sequence as stated in the Teton County Landfill Cover: Borrow Source Material Requirements attached to this Specification as Appendix A.

Coordination with existing private Utilities: Contractor is required to maintain and protect all existing utilities during all Construction activities as specified herein. It is the sole responsibility of the Contractor to notify all utility companies that have utilities within the construction corridor even if the utility company contact information is not provided in the Contract Documents

AVAILABILITY OF LANDS FOR WORK, ETC.

The lands upon which the Work is to be performed are owned or operated by the OWNER. Access to the work sites by CONTRACTOR in performing the Work are identified in the Contract Documents.

All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work will be provide by the OWNER.

CONTRACTOR USE OF PREMISES

Definition of Site: The Site is defined as the area within the property lines and construction limits shown on the Drawings or described in the Specifications. CONTRACTOR shall limit operations, including material and equipment storage, to within those boundaries.

CONTRACTOR shall keep driveways, roads, and entrances serving the site clear and available to OWNER and OWNER'S employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

Hours of Operation:

1. CONTRACTOR'S operations shall be limited to the hours of 7:00 a.m. to 7:00 p.m. (local time), Monday through Saturday, unless prior arrangements are made with OWNER 48 hours in advance of proposed change.

Protection and Repair of Existing Facilities and Utilities: CONTRACTOR shall perform operations carefully and in such a manner as to protect existing facilities and utilities. Obstructions not shown on Drawings described in the Specifications may exist and shall be exposed by Contractor without damage. CONTRACTOR shall be responsible for damage to existing facilities and utilities resulting from CONTRACTOR'S operations, and shall repair or replace damaged items to OWNER'S satisfaction.

Unfavorable Construction Conditions: When unfavorable weather, soil, drainage, or other unsuitable construction conditions exist, CONTRACTOR shall confine operations to work which will not be adversely affected by such conditions. No portion of the Work shall be constructed under conditions which would adversely affect the quality of the Work, unless special means or precautions are taken to perform the Work in a proper and satisfactory manner.

Site Security: CONTRACTOR shall install security measures as needed to prevent unwanted public intrusion into the work areas. Measures such as warning signs, security fencing shall be taken to the extent necessary.

EXISTING SITE CONDITIONS AND USES

Teton County Landfill is an active landfill transfer station facility site. All access roads will be shared with users and operators of the transfer station. Users of the transfer station and transfer station operations personnel and equipment shall have preference and right of way.

The Felt Pit is as active borrow material facility site. All access roads will be shared with users and operators of the Pit. Users of the Pit and Pit operations personnel and equipment shall have preference and right of way.

All trucks hauling on roads will observe all state, county, and local traffic rules and weight limits and give right of way to Landfill operations.

Soils predicted to be encountered during construction include: topsoil, suitable landfill cover material as defined in Appendix A, gravel.

APPLICATION FOR PAYMENT AND LIEN WAIVERS RELEASES

Submit 2 copies of each application on Application for Payment form included in Standard Forms of these Contract Documents.

Lien releases are required from each supplier and subcontractor with Application for Payment at the completion of that portion(s) of affected Work.

ANTIQUITIES

All fossils, coins, articles of value or antiquity and structures and other remains or relics of geological or archeological interest discovered on or in the area of the work site are and will remain the absolute property of the OWNER.

Take all reasonable precautions to prevent unauthorized removal of or damage to any such discovery. Inform the ENGINEER immediately upon discovery.

Obtain and comply with the ENGINEER'S instructions for removal and disposal of the discovery.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

APPENDIX A – TETON COUNTY LANDFILL COVER: BORROW SOURCE MATERIAL REQUIREMENTS

ATTACHMENT A

Teton County Landfill Cover: Borrow Material Requirements

ATTACHMENT A

Teton County Landfill Cover: Borrow Material Requirements

This document provides a basis for developing the project specifications and bid package related to excavation, segregation, haul, and stockpiling of suitable landfill cover from the Felt Pit for the Teton County Landfill. Additionally, the project Quality Assurance requirements and rationale for material selection are included in the subsequent sections.

TECHNICAL SPECIFICATIONS FOR CONTRACTOR BID PACKAGE

Felt Pit Material Specifications

This specification applies to soil borrow source material from the Felt Pit, located approximately nine miles north of Driggs, Idaho. The purpose of the borrow material is for final cover soil at the closed Teton County Landfill.

Materials Identification: The Felt Pit borrow source investigations identified three soil types as distinct layers. The soil types include topsoil, subsoil (suitable for the landfill cover), and gravel. The uppermost, topsoil layer includes the vegetative cover and majority of roots and is typically 4 to 6 inches deep. The subsoil layer, found beneath the topsoil, is the material slated for use as landfill cover soil. The subsoil layer at the Felt Pit varies from 0.5 to 3.0 feet thick. Gravel that is unsuitable for the landfill cover is found beneath the subsoil layer.

Landfill Cover Soil General Requirements: Borrow material to be used as landfill cover soil shall consist of fine-grained soil free from the following:

- matted roots or excessive organic matter;
- boulders, concrete rubble or other debris;
- peat, muck, or highly organic soils;
- frozen material; and
- cobbles and gravel in excess of allowable limits.

Gradation Requirements: The final cover material gradation (as determined by the amount of material passing through various standard sieve sizes) shall conform to the following:

Sieve Size	Percent Passing by Weight
#4 U.S. Standard sieve	85% to 100%
#200 U.S. Standard sieve	50% or greater

Classification Requirements: The final cover material shall meet both of the following soil classification requirements:

Soil shall classify as lean clay or silt (CL, ML, or CL-ML) per the Unified Soil Classification System (USCS). Soil shall classify as loam, silt loam, or silt per the U.S. Department of Agriculture Soil Classification System.

Work Execution

Contractor shall complete the following work.

1. Mobilize equipment and crews to the jobsite. Provide sanitary facilities, site security, staging areas, and other general support as required for the work.
2. Prepare the project site. Install best management practices (BMPs) for stormwater and sediment management per the project specifications.
3. Strip topsoil (including surface vegetation, organic-rich soil, and roots) to its full depth as determined by the Engineer. This may be accomplished by using bulldozers, wheel loaders, scrapers, or similar heavy equipment. Stockpile the topsoil at an onsite location (or locations) approved by the Owner.
4. Remove the underlying subsoil that is slated for use as landfill cover material. This may be accomplished by using bulldozers, wheel loaders, scrapers, graders, or similar heavy equipment. The subsoil shall be windrowed or stockpiled in a location (or locations) approved by the Engineer prior to the screening and acceptance tests. Individual windrows or stockpiles for screening and acceptance shall not exceed 250 cubic yards in volume.
5. Continuous oversight by the Engineer (or designated Engineer's representative) will be provided to assure that only approved materials are hauled to the landfill. The Engineer will designate and mark the windrowed or stockpiled materials according to status. Wooden lathe or metal fence posts with flagging will be placed on each side/end of a stockpile/windrow. Materials to be tested will be marked with orange flagging. Materials that have been tested and approved for loading and offsite hauling will be marked with blue flagging. Rejected materials will be marked with red flagging.
6. Rejected materials (such as gravels underlying the desired cover soil material) that are windowed or stockpiled shall be removed and placed in a designated onsite stockpile or stockpiles at a location (or locations) approved by the Owner.
7. Approved materials shall be loaded and hauled to the Teton County Landfill site and stockpiled at locations approved by the Owner.
8. The Felt Pit site shall be reclaimed by the Contractor as required in the project specifications.

QUALITY ASSURANCE

Continuous quality assurance will be provided by the Engineer (or Engineer's representative) at the Felt Pipe borrow source while the materials are excavated, stockpiled, tested, loaded, and hauled to the Teton County Landfill. Only acceptable materials will be used in the landfill cover.

Testing Procedures and Frequencies

Confirmation sampling and testing of materials, as windrowed or stockpiled by the Contractor, will be performed by the Engineer. Inspection and testing requirements for this material shall be as shown on Table A-1 below and per the procedures shown in Attachment B – *Standard Operating Procedure for Field Screening and Testing Cover Materials for the Teton County Landfill*. The material will be hauled to the landfill site for its intended use only after the field screening tests demonstrate that the material conforms to the project specifications. Material that fails to meet the project specifications shall not be hauled to the landfill, and shall be segregated and stockpiled on the Felt Pit site at a location approved by the Owner.

Table A-1. Test Requirements for Excavated (and Windrowed or Stockpiled) Material.

Test	Designation	Testing Frequency
Field Screening	Per SOP	min. 1 per 250 yd^3
Water Content	ASTM D2216	1 per 1,000 yd^3
Sieve Analysis	ASTM D422	1 per 1,000 yd^3
Hydrometer	ASTM D422	1 per 1,000 yd^3
Atterberg Limits	ASTM D4318	1 per 1,000 yd^3
Standard Proctor	ASTM D698	1 per 5,000 yd^3
Hydraulic Conductivity	ASTM D5084	1 per 10,000 yd^3

DESIGN BASIS

Three representative samples from eight test pits at the Felt Pit were classified in the laboratory as silt (ML, per USCS) and loam or silt loam (USDA). Two Felt Pit samples were submitted for hydrologic testing, and those results were used to run additional modeling scenarios. The UNSAT-H model indicated that the Felt Pit soil yielded slightly higher percolation values than the fine-grained existing cap materials; however, the overall performance of the ET cap (if constructed to full thickness using the Felt Pit material) exceeded the Subtitle D cap.

Regarding rock content, researchers have found that, depending on the relative proportion of the coarse and fine components in soil, the inclusion of gravels in the finer component may increase

or decrease the porosity and hydraulic conductivity of a mixture (Zhang et al, 2009). Milczarek et al., (2006) evaluated the impact of gravels on the hydraulic properties of cover material. Their study used an alluvial material sample to fabricate eight soils with various particle size distributions. The primary sample matrix for all testing was chosen to be the fine-earth fraction, less than 4.75 mm in diameter. Additional soil materials were then fabricated in which either part of the fine-earth fraction was removed, or gravel material ranging from 4.75 to 19 mm diameter was added. The test results showed that saturated hydraulic conductivity (Ksat) decreased with up to 30% gravel content but increased by orders of magnitude at higher gravel contents. The author's noted that this decrease in hydraulic conductivity was consistent with the "bricks and mortar" model of Bouwer and Rice (1984) whereby gravel acts as a barrier to flow. The dramatic increase in hydraulic conductivity indicated that gravel contents above 30% resulted in highly conductive interconnected pores. Moisture retention characteristic (MRC) data showed that the amount of retained water only slightly decreased as gravel content increased.

The impact of gravels on hydraulic properties of cover materials continues to be an area of increasing scientific study. Zhang et al., (2009) conducted laboratory experiments to measure the porosity and saturated hydraulic conductivity of binary mixtures with different fractions of coarse and fine components. The results for each of the mixtures showed that as the gravel content increased to near 40 percent, the saturated hydraulic conductivity decreased slightly to a minimum and then increased sharply. The current state of research has not resulted in a consensus methodology for evaluating the impact of gravels on cover systems performance. Therefore, a reasonable approach is to reduce the fraction of gravels in the cover system to the extent practicable balancing the implications of current research and cost-effectiveness.

Based on the Milczarek et al., (2006) study, gravel contents less than 30% in the Teton County ET cover are desirable. As added assurance that the cover will meet the performance requirements, a safety factor of 2 has been applied so the gravel content will be maintained to ≤15% gravel in the ET cover.

References

Bouwer, H. and R.C. Rice. 1984. Hydraulic properties of stony vadose zones. Ground Water 22(6):696-705.

Milczarek, M., Dirk van Zyl, Sheng Peng and Robert Rice. 2006. "Saturated and Unsaturated Hydraulic Properties Characterization at Mine Facilities: Are We Doing it Right?" *7th International Conference on Acid Rock Drainage*. March 26-30, 2006. St. Louis, Missouri. American Society of Mining and Reclamation (ASMR), Lexington, KY.

Zhang, Z.F., A.L. Ward and J.M. Keller. 2009. *Determining the Porosity and Saturated Hydraulic Conductivity of Binary Mixtures*. PNNL-18801. Pacific Northwest National Laboratory, Richland, Washington.

Attachment A – Teton County Landfill Cover: Borrow Material Requirements

ATTACHMENT B

Standard Operating Procedure for Field Screening and Testing Cover Soil Materials for the Teton County Landfill

Summary

This standard operating procedure covers identification of excavated materials at the Felt Pit for purposes of determining whether the soil meets the requirements for the Teton County Landfill cover. This procedure shall be used to check and approve (or reject) materials for hauling to the Teton County Landfill. A combination of visual observation, field classification of soils, and a gravel screening procedure is used to make the determination.

Equipment

The equipment needed to perform the screening test includes:

- Shovel, spade, or large scoop
- Three stainless steel pans or bowls
- Mortar and pestle
- #4 U.S. Standard sieve with pan and lid
- Scale, accurate to nearest +/- 5 grams

Procedures

Observation: Continuously observe the Contractor's progress and materials as the subsoil is excavated. Notify the Contractor immediately if the excavation progresses too deep (into the gravel zone). Visually note the characteristics of the subsoil as it is windrowed or stockpiled, and estimate the percent cobbles. Record observations in a field logbook, noting the excavation location area on the site, subsoil depth, percent cobbles, relative moisture, and other pertinent information.

Once the Contractor has excavated a sufficient amount of material to begin hauling, then proceed with the field classification and soil screening procedures.

Field classification: Spot check soils for field classification at a rate of approximately 1 test per 250 cubic yards. Perform field classification in accordance with ASTM D2488 – *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).* Note and record the observations and field classification in the field logbook.

Field Screening: The following steps shall be used to perform the field screening for percent gravels, at a minimum rate of 1 test per 250 cubic yards:

1. Collect a representative sample from the windrow or stockpile. The sample shall be a composite representing several locations and the minimum sample mass shall be 5 kg (11 lbs). Cobbles (rocks > 3 inches) shall be omitted from the sample. Note in field notebook the number and estimated size of cobbles removed from the collected sample. Assign the sample a field identification number and record that number along with other relevant information.
2. Field classify the sample per ASTM D2488 and record the information.
3. Mix the sample and pulverize any hard clods of soil greater than ¼-inch in size. Do not break down any rock particles that may be present.
4. Place the #4 sieve over the pan and pour a minimum of 1 kg of the soil onto the screen.
5. Cover with lid and thoroughly shake the screen and pan assembly by hand.
6. Remove and segregate the materials retained on and passing the #4 sieve.
7. If soil clods are found on the #4 screen, then pulverize them and return the soil to the remaining sample to be tested.
8. Repeat Steps 3 through 6 until entire sample is screened.
9. Use the scale to weigh the total amounts of materials retained on and passing the #4 sieve.
10. Determine the percent gravel per the procedure described below.
11. Record all measurements and observations in the field logbook.
12. Return the material passing the #4 sieve to the stockpile and discard any gravel.

Calculation of Percent Gravel: In the laboratory, the calculation of percent gravel is based on dry weight of the sample. However, given that the field screening process does not allow time for thoroughly drying the sample, the water content must be assumed. The initial water content value chosen for analysis may be based on the previous laboratory results or by in-situ testing with a nuclear density gauge. The following equation shall be used to determine the percent gravel (Step #10) in the screened sample:

$$\% \text{ Gravel} = [R / T(1-w)] * 100\%$$

where R = weight retained on the #4 sieve
T = total weight of sample
w = soil water content (decimal value)

Material Acceptance or Rejection: The percent gravel shall be combined with the visual estimate for percent cobbles to determine the total percent rocks (i.e., particles exceeding 4.75 mm [#4 sieve] in size). The material shall be accepted for hauling to the landfill if the total

percent rocks is 15% or less, and the field classification indicates that the soil meets the USCS classification requirements in the project specifications. Materials that do not meet these requirements shall be rejected (i.e., not hauled to the landfill) and stockpiled on the Felt Pit site at a location approved by the Owner.

Field Markings: Identify the material in each location (windrows or stockpiles) by its appropriate status – to be tested, approved, or rejected. Place flagging on lathe or stanchions on both ends/sides of windrows/stockpiles. Use the following colors to designate materials:

Orange – materials to be tested, status unknown
Blue – materials approved for hauling
Red – rejected materials, not approved for hauling

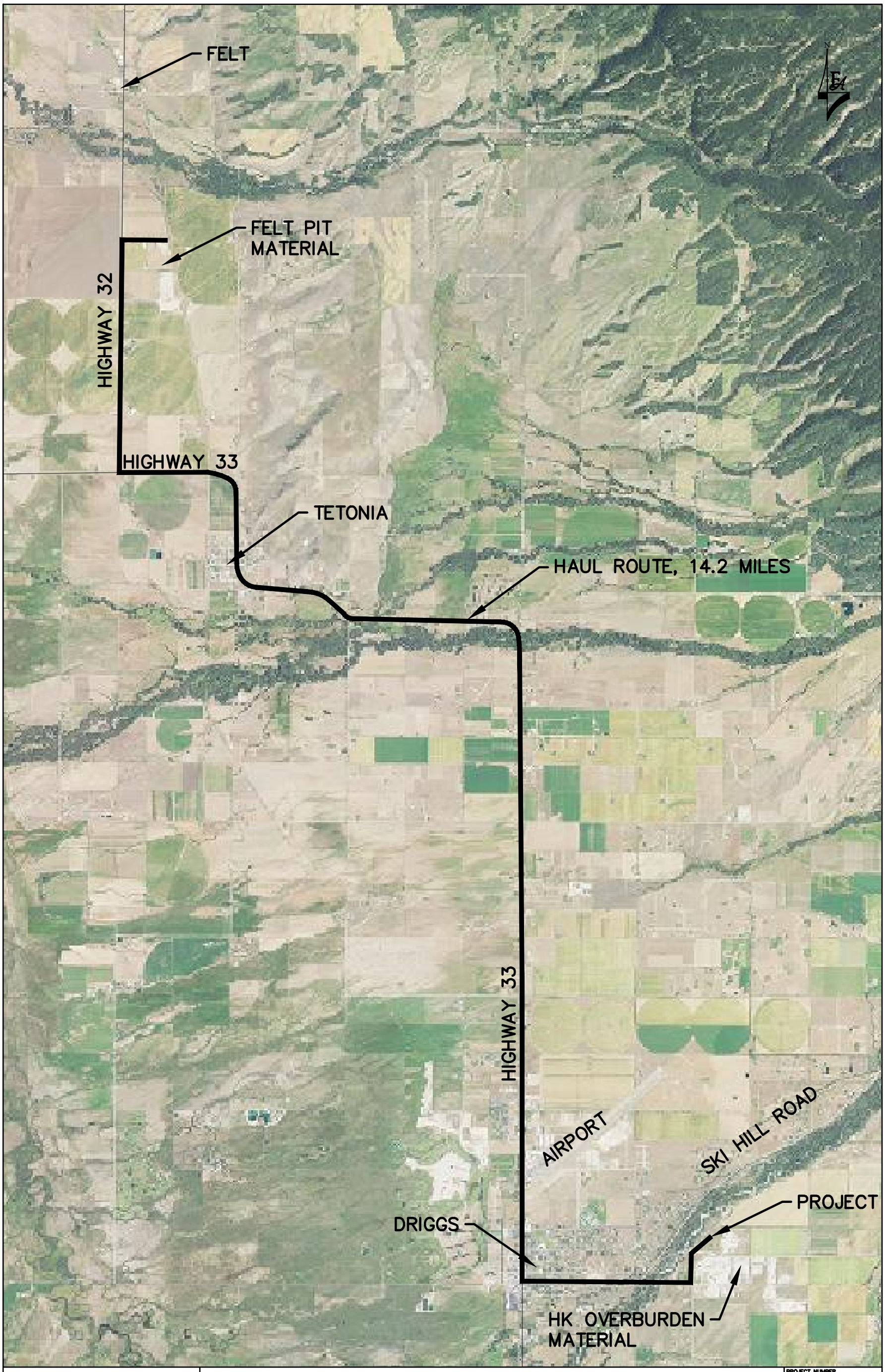
Laboratory Testing: Collect representative soil samples at the rates shown in Table B-1 below, and submit to a qualified laboratory for the required tests.

Table B-1. Laboratory Test Requirements.

Test	**Designation**	**Testing Frequency**
Water Content	ASTM D2216	1 per 1,000 yd^3
Sieve Analysis	ASTM D422	1 per 1,000 yd^3
Hydrometer	ASTM D422	1 per 1,000 yd^3
Atterberg Limits	ASTM D4318	1 per 1,000 yd^3
Standard Proctor	ASTM D698	1 per 5,000 yd^3
Hydraulic Conductivity	ASTM D5084	1 per 10,000 yd^3

- END OF PROCEDURE -

APPENDIX B – CONSTRUCTION SITE LOCATION AND HAUL ROUTE MAP



FORSGREN Associates Inc.

OVERALL AREA MAP

TETON COUNTY LANDFILL

PROJECT NUMBER	01-13-0031
PROJECT MANAGER	K. HARRIS
DATE	MAY 2014

K:\Teton County\01-13-0031 Teton County Landfill Cap Rehabilitation\400 Prelim\9000 CAD\Exhibits\EXHIBIT 4 - Area Map.dwg, 10/28/2014 2:43:02 PM, mpalmer

FORSGREN Associates Inc.

FELT PIT
INITIAL COVER MATERIAL SOURCE AREA

TETON COUNTY
LANDFILL

PROJECT NUMBER
01-13-0031

PROJECT MANAGER
K. HARRIS

DATE
OCTOBER 2014

FORSGREN Associates Inc.

STOCKPILE LOCATION

TETON COUNTY LANDFILL

PROJECT NUMBER	01-13-0031
PROJECT MANAGER	K. HARRIS
DATE	OCTOBER 2014

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Measurement and payment criteria applicable to portions of the Work performed under a lump sum and unit price payment method.
2. Defect assessment and non-payment for rejected work.

1.2 AUTHORITY

A. The Engineer or Engineer's representative will take all measurements and compute quantities.

B. All measurements shall be as specified or made by conventional means with accuracies consistent with field conditions and common practice. Should a discrepancy in measurement exist which is greater than 10%, the item in question shall be re-measured by both the Contractor and the Engineer for verification.

1.3 UNIT QUANTITIES SPECIFIED

A. Quantities and measurements indicated in contract documents are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Engineer shall determine payment.

B. If actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit sum/prices contracted.

C. Bid amounts include all equipment, tools, materials, labor service, and all other items required to complete the Work included in the Agreement unless specifically excluded by this section. Work required for which no separate Bid item is identified will be considered as a subsidiary obligation of the CONTRACTOR, and the cost therefore shall be included in the most applicable Bid Item.

1.4 MEASUREMENT OF QUANTITIES

A. Measurement Devices:
1. Weigh Scales: Inspected, tested and certified by the applicable State Weights and Measures department within the past year.
2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
3. Metering Devices: Inspected, tested and certified by the applicable State department within the past year.

B. Measurement by Weight: All landfill cover material will be measured by the ton at the Teton County Landfill Transfer Station scales. The comparison of empty truck weights with the full truck weights will be used to determine actual tonnage delivered. Periodic proctor testing will be conducted by the County in a third party lab to determine the average density of the cover material. Actual pay quantity will be calculated using the product of the tonnage delivered and the average density determined by the lab.

C. Measurement by Volume: reference Measurement by Weight.

D. Measurement by Area: Measured by square dimension using mean length and width or radius.

E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.

F. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

G. Measurement for Work under Unit Price will be by whole unit only. Measurement shall be by unit shown on the bid schedule.

1.5 PAYMENT

A. Payment Includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by the unit sum/price for Work which is incorporated in or made necessary by the Work.

C. Payment shall be by the unit quantity identified in the Bid Schedule unless otherwise noted herein.

D. Payment for mobilization shall be included in payment for Bid Item 1. The CONTRACTOR shall not include the costs of mobilization in the Unit Prices submitted for other bid items.

E. Bid items must pass field quality control testing to be eligible for payment.

1.6 DESCRIPTION OF BID ITEMS

A. References are made herein to specific details and/or specification sections. These references are generally applicable to the Bid Item discussed, but are not intended to be fully inclusive of the work required. Contractor must familiarize himself with the complete set of specifications in that they will be used to control and govern the work for this project. Bid Items that appear in the Bid Form are further defined and described below.

B. BID ITEM 1.0 – Provide all Mobilization, Staging, Bonds, Insurance, Demobilization, Other Incidentals, and Cleanup Necessary to Perform the Work

1. Bid item includes all required labor, products, tools, equipment, transportation, services and incidentals; overhead and profit necessary to provide all mobilization and incidentals including but not limited to:
   a. staging,
   b. bonds,
   c. insurances,
   d. demobilization,
   e. project site progress cleaning and final cleaning,
   f. provide water and dust control as required during construction,
   g. provide project sign, if required, as described in the specifications,
   h. all other incidentals and cleanup necessary to perform the work.
2. Payment will be made at the contract lump sum in accordance with the following table:

Percent of Original Contract Amount Earned	Percent of Amount Bid for Mobilization to be Paid
5%	40%
15%	20%
40%	20%
50%	10%

3. The final 10% of Bid Item 1.0 will be paid after substantial completion of the project as part of the final payment.

C. BID ITEM 2.0 – Stockpile Landfill Cover Material near the Teton County Landfill Facility

1. Bid item includes all required labor, products, tools, equipment, transportation, services and incidentals; erection, overhead and profit necessary to remove, transport, and stockpile landfill cover material from the Teton County Felt Pit location to the Teton County Landfill Location (approximately 14 miles) including but not limited to:
    1) Removal and stockpile of topsoil at Felt Pit location;
    2) Removal and Stockpiling potential cover material at the Felt Pit for testing;
    3) Loading, hauling, and unloading acceptable material from Felt Pit to Teton County Landfill location;
    4) All other work and materials necessary for completion project not included in other bid items and all related work required for the completed installation, installed and accepted in place.
2. b. Bid item does not include any work included in other bid items.

D. BID ITEM 3.0 – Provide Temporary On-Site Facilities
    a. Bid item includes all required labor, equipment, transportation, services and incidentals; erection, overhead and profit necessary to provide on-site project facilities at the Felt Pit area.
    b. Bid item includes: construction trailer with area available to Engineer, sanitary sewer facilities and storage area for field testing equipment, supplies and incidentals, including by not limited to, those necessary for the movement to and from the project site.

E. BID ITEM 4.0 – Traffic Control
    1. Bid item includes all required permits, labor, products, tools, equipment, transportation, coordination with roadway governing authorities, services and incidentals, overhead and profit necessary to provide traffic control as required for construction for work including but not limited to barricades, flaggers, warning signs and other devices.

F. BID ITEM 5.0 – Force Account
    1. Bid item to account for potential adjustments during construction, including, but not limited to:
        a. Unforeseen conflicts;
        b. Other additional items related to stockpiling landfill cover material at Owner's discretion.
    2. Bid item does not include work required in any other bid item including work considered incidental to construction of other bid items.
    3. All work and materials associated with this bid item must be approved by an authorized representative of the Owner (not the Engineer) in writing prior to the work being performed. This written preapproval must include a dollar amount for the additional work.

G. It is the responsibility of the Contractor to fully inform himself regarding all Federal, State and local tax laws, rules or regulations furnished under this Contract, including all exemption provisions and procedures.

H. All bid prices for material, equipment and labor for the work under this Contract is inclusive of any tax for materials which are imposed by any governing agency to which the work hereunder is subject. The Contractor is solely responsible for assuring that all applicable taxes are included in his bid.

PART 2 - PRODUCTS - NOT USED

2.1

PART 3 - EXECUTION – NOT USED

END OF SECTION

FIELD ENGINEERING

PART 1 - GENERAL

1.1 GENERAL

A. The Owner will provide field testing as described in Section 01010:
   1. Continuous oversight by the Engineer's representative will be provided to assure that only approved materials are hauled to the landfill location.
   2. The Engineer's representative will designate and mark the stockpiled materials according to status as described in Section 01010.
   3. Confirmation sampling and testing of materials stockpiled by Contractor will be performed by Engineer's representative as described in Section 01010.

B. The Contractor shall:
   1. Safeguard all points, stakes, grade marks, monuments and benchmarks made or established on the Work. Re-establish same with the exception of primary control monument.
   2. Coordinate removal and stockpiling locations of material with Owner and Field Engineer.
   3. Provide such facilities as may be necessary for the Engineer to check material stockpiles by Contractor.
   4. The Contractor shall give notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the Work. If the Contractor observes that the Contactor Documents are at variance therewith, he shall promptly notify the Engineer in writing.

1.2 CONTRACTOR'S SUPERINTENDENT

1. Contractor shall employ and retain at the site of the Work a Superintendent with the experience and capability of performing all tasks required of the Contractor. Tasks included are:
   a. Provide daily reports of Project activity. Reports to be submitted to the Engineer with all pertinent information pertaining to the project as follows:
      1) Number of employees.
      2) Subcontractor employees.
      3) Breakdown of employees by trade.
      4) Major construction equipment utilized
      5) Location of all areas in which construction was done.
      6) Materials and equipment received.
      7) Work and tests performed.
      8) Weather conditions.
      9) Safety.
      10) Delays.
      11) Instructions received.
   b. Submit two (2) copies of the Contractor's Report. The daily report is due to the Engineer by 9:00 A.M. the next working day after the work was performed and shall be signed by a responsible member of the Contractor's staff.
   c. Check all equipment and install best management practices for stormwater and sediment management.
   d. Maintain field office files and specifications, and coordinate engineering services with subcontractors. Prepare layout and coordination drawings for construction operations.
   e. Check and coordinate Work for conflicts and interferences and immediately advise the Engineer of all discrepancies noted.
   f. Cooperate with the Engineer in field inspections as required.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 FIELD TESTING

A. OWNER will employ and pay for services of field inspector to perform specified on-site testing as described in respective sections of specifications.
   1. CONTRACTOR shall cooperate with field inspector to facilitate execution of its required services.
   2. Employment of field inspector shall in no way relieve CONTRACTOR'S obligation to perform Work of Contract.
   3. CONTRACTOR to notify ENGINEER sufficiently in advance of operations to allow for assignment of personnel and scheduling of tests.

1.2 ORDER OF CONSTRUCTION AND CONSTRUCTION SCHEDULE

A. Construction operations will be scheduled to allow the Owner uninterrupted operation of existing adjacent facilities. Coordinate connections with existing work to ensure timely completion of interfaced items.

B. At no time shall Contractor or his employees modify operation of the existing facilities or start construction modifications without approval of the Owner except in emergency to prevent or minimize damage.

C. Within 10 days after award of Contract, submit for approval a critical path type schedule. Account for schedule of Subcontracts. Include proper sequence of construction, various crafts, purchasing time, shop drawing approval, material delivery, equipment fabrication, startup, demonstration, and similar time consuming factors. Show on schedule as a minimum, earliest starting, earliest completion, latest starting, latest finish, and free and total float for each task or item.

D. Evaluate schedule no less than bi-monthly. Update, correct, and rerun schedule and submit to Engineer in triplicate with pay application to show rescheduling necessary to reflect true job conditions. When shortening of various time intervals is necessary to correct for behind schedule conditions, indicate actions to implement to accomplish work in shorter duration. Information shall be submitted to Engineer in writing with revised schedule.

E. If Contractor does not take necessary action to accomplish work according to schedule, Contractor may be ordered by Owner in writing to take necessary and timely action to improve work progress. Order may require increased work forces, extra equipment, extra shifts or other action as necessary. Should Contractor refuse or neglect to take such action authorized, under provisions of this contract, Owner may take necessary actions including, but not necessarily limited to, withholding of payment and termination of contract.

F. Upon receipt of approved "Work Schedule," within 10 days, submit to Engineer an estimated payment schedule by each month of project duration. Include a composite curve to show estimated value of work complete and stored materials less specified retainage. Establish key weeks when work will be 50, 80, 90, and 100 percent complete.

G. Contractor may obtain approval for winter shutdown by providing a written request that outlines the intended shutdown period including a startup date on or before June 1, 2015, or as approved by the Owner. No work requiring oversight or inspection by the Engineer shall be conducted during the shutdown.

1.4 SPECIAL CONSIDERATIONS

A. Contractor shall be responsible for negotiations of any waivers or alternate arrangements required to enable transportation of materials to the site.

B. Maintain conditions of access road to site such that access is not hindered as the result of construction related deterioration.

1.5 HISTORICAL AND ARCHAEOLOGICAL

A. If during the course of construction, evidence of deposits of historical or archeological interest is found, the Contractor shall cease operations affecting the find and shall notify the Owner. No further disturbance of the deposits shall ensue until the Contractor has been notified by Owner that Contractor may proceed. Owner will issue a notice to proceed after appropriate authorities have surveyed the find and made a determination to Owner. Compensation to the Contractor, if any, for lost time or changes in construction resulting from the find, shall be determined in accordance with changed or extra work provisions of the Contract Documents. The site has been previously investigated and has no known history of historical or archaeological finds.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.1 GENERAL

A. Additional technical definitions are provided in appropriate sections of these Specifications.

B. Abbreviations and acronyms are sometimes used in the Specifications to identify reference standards. Implied words and meanings shall be interpreted as appropriate.

C. When a standard is specified by reference, the CONTRACTOR shall comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or when applicable codes established more strict standards.

D. When published standards are referenced, the publication in effect on the date of issue of Contract Documents shall apply, unless specified otherwise.

E. Structures and Surface Features: For purpose of this section, shall mean existing structures and surface features, including but not limited to buildings, pavements, curb and gutter, signs, posts, fences, trees, shrubs, other landscaped features.

F. Salvaged Topsoil: Natural loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils available from overlying portions of areas to be excavated for construction.

G. Unsuitable Material: Topsoil, peat, organic soils, and materials containing slag, cinders, foundry sand, debris, and rubble or soil with less than required bearing capacity as determined by ENGINEER.

H. Utilities: Existing gas mains; water mains; electric lines; conduits, telephone, and other communication lines; sewer pipe; cable television, other utilities, and appurtenances.

I. Influence Zone Under Foundations, Pavements, or Sidewalks: Area below foundation or pavement and sidewalk base bounded by 1 horizontal to 2 vertical slope extending outward from 1 ft beyond outer edges of foundation, pavement, or sidewalk.

J. Influence Zone Around Piping or Electrical Ducts: Area below limits bounded by line 12 in. above pipe or duct and by 1 horizontal to 2 vertical slope extending outward from that line 1 ft beyond outer edge of pipe or duct.

1.2 ABBREVIATIONS, NAMES, AND ADDRESSES OF ORGANIZATIONS

The CONTRACTOR shall obtain copies of referenced standards, direct from the publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.

AASHTO	American Association of State Highway and Transportation Officials 44 North Capital Street, NW Washington, DC 200001
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
ITD	Idaho Transportation Department 3311 W. State Street Boise, ID 83707

DEQ Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

1.3 OTHER DEFINITIONS

A. Project Site: Is the space available for performing construction activities, either exclusively or in conjunction, with others performing work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

B. OWNER, ENGINEER, & OWNER'S REPRESENTATIVE: as discussed in Section 01041.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

QUALITY CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Quality assurance and control landfill cover material
2. References
3. Field samples
4. Inspection and testing

B. Related Sections include but are not necessarily limited to:
1. Section 01010 - Summary of Project

1.2 REFERENCES

A. Conform to reference standard by date of issue current on date of Contract Documents.

1.3 SUBMITTALS

A. Health and Safety Plan:

1.4 INSPECTION AND TESTING:

1. The Engineer's Representative will perform confirmation and testing of the proposed cover material stockpiles in accordance with the Borrow Material Requirements and Standard Operating Procedure for Field Screening and Testing located in Section 01010.
2. Inspections, tests, and other services specified in individual specification Sections will be accomplished under the direction of the Engineer.
3. Reports will be submitted through the Engineer, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
4. Notify Engineer 48 hours prior to expected time for operations requiring services.

1.5 QUALITY ASSURANCE

A. Procedures
1. Continuously observe the Contractor's progress and materials as the subsoil is excavated.
2. Notify the Contractor if the excavation progresses too deep (into the gravel zone).
3. Visually note the characteristics of the subsoil as it is stockpiled and estimate the percent cobbles.
4. Record observations in a field logbook noting the excavation area on the site, subsoil depth, percent cobbles, relative moisture, and other pertinent information.
5. Once the Contractor has excavated a sufficient amount of material to begin hauling, then proceed with the field classification and soil screening.
   a. Field Classification: Spot check soils for field classification at a rate defined in Section 01010 and in accordance with ASTM D2488 – *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).* Note and record the observations and field classification in the field logbook.
   b. Field Screening: Perform per Standard Operating Procedure for Field Screening and Testing Cover Soil Materials for the Teton County Landfill. See Section 01010 – Appendix A.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Temporary Utilities: Electricity, water, and sanitary facilities.
2. Temporary Controls: Barriers, enclosures and fencing, protection of the work, and dust and water control.
3. Construction Facilities: Access roads, parking, progress cleaning, and temporary buildings.
4. Safety: Overall safety for project activities

1.2 TEMPORARY ELECTRICITY

A. Provide and pay for temporary power service to all required areas including all field offices as required.

1.3 TEMPORARY HEAT

A. Provide and pay for heat devices and heat as required to maintain specified conditions for construction operations.

1.4 TEMPORARY VENTILATION

A. Ventilate enclosed areas to prevent accumulation of dust, fumes, vapors, or gases.

1.5 TEMPORARY WATER SERVICE

A. All Water used for construction as determined by the Contractor will be provided by the Contractor.

1.6 TEMPORARY SANITARY FACILITIES

A. Provide and maintain required facilities and enclosures.

1.7 STAGING AREAS

A. A staging area has not been identified in the Contract Documents and is to be provided by the Contractor. Any materials, equipment, or construction vehicles stored or used onsite shall be placed in locations that do not interfere with normal traffic or off-road accesses. If staging is to occur on private property, Engineer shall receive from the Contractor a copy of a signed agreement between the Contractor and property owner where staging is to occur prior to staging.

1.8 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to allow for Owner's use of site, and to protect existing facilities and adjacent properties from damage from construction operations.

B. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

1.9 FENCING

A. Contractor shall protect all existing fencing. Any damage to the existing fence and or gates shall be repaired at the time of damage.

1.10 WATER CONTROL

A. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.11 DUST CONTROL

A. Provide equipment and arrange for water to adequately control dust on project site.

B. Comply with local government requirements for pollutants.

1.12 TRAFFIC CONTROL

A. Contractor shall provide traffic control for all phases of the project. Contractor shall prepare and submit traffic control plans to the county, city, or agency with jurisdiction as required. Contractor shall not proceed with work until traffic control plan is approved.

1.13 PROTECTION OF INSTALLED WORK

A. Protect installed Work and provide special protection where specified in individual specification Sections.

1.14 SECURITY

A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.15 ACCESS ROADS

A. Maintain access to the Felt Pit during construction.

B. Protect adjacent land from damage during all activities.

1.16 PARKING

A. Provide temporary parking areas to accommodate construction personnel.

1.17 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove waste materials, debris, and rubbish from site bi-weekly and dispose off-site.

1.18 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary above grade or buried utilities, equipment, facilities, and materials, prior to Final Application for Payment inspection.

B. Remove underground installations.

C. Clean and repair damage caused by installation or use of temporary work.

D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.19 SAFETY AND PROTECTION

A. Refer to Article 06.13 thru 06.16 of General Conditions for responsibility of Contractor for safety and protection.

B. OSHA regulations to apply on this project.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION